J. HINES
147052

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L1 0 FILE MEDLINE
L2 1 FILE CAPLUS
L3 0 FILE BIOSIS
L4 0 FILE EMBASE
L5 2 FILE WPIDS

TOTAL FOR ALL FILES
L6 3 FUSION PROTEIN AND (M OR MYCOPLASMA)(W) GALLISEPTIC? AND (MAREK?
DISEASE OR HERPES?)

=> dup rem l6

PROCESSING COMPLETED FOR L6
L7 2 DUP REM L6 (1 DUPLICATE REMOVED)

=> d cbib abs 1-2

L7 ANSWER 1 OF 2 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD
AN 1999-620189 [53] WPIDS
AB WO 9951622 A UPAB: 19991215
NOVELTY - Avian interleukin-15 (IL-15) polypeptide (I) that stimulates growth of avian T lymphocytes that express gamma delta T cell receptors (TCR) is new.
DETAILED DESCRIPTION - (I) is:
(i) a 143 amino acid (aa) sequence (S1) (given in the specification);
(ii) a fragment of (S1) that stimulates growth of avian T lymphocytes that express gamma delta T cell receptors (TCR), or
(iii) a derivative of (S1) with one or more aa substitutions, mutations, deletions or insertions, provided they retain at least 70% of the biological activity of (S1) for stimulating the specified lymphocytes and have at least 85% sequence identity with (S1).
INDEPENDENT CLAIMS are also included for the following:
(a) polynucleotides (II) that:
(i) encode (I), or
(ii) hybridize to (i) under stringent conditions;
(b) recombinant vector containing (II);
(c) transformant containing (II);
(d) recombinant virus containing (II);
(e) composition for preventing disease in poultry comprising transformants of (c), virus of (d) or (I) or its salt;
(f) an adjuvant comprising the same materials as (e); and
(g) method for immunizing birds by administering a cytokine (Ia) that

stimulates the immune system and an antigen (Ag) derived from an avian pathogen.

ACTIVITY - Antiviral; antibacterial; antiprotozoal; anticoccidiosis.

MECHANISM OF ACTION - (I) is a growth factor for T cells that express the gamma delta T cell receptor, so stimulates the immune response to a co-administered antigen. When lymphocytes from chicken spleen were stimulated with concanavalin A (ConA), then grown in presence of avian IL-15, they showed high proliferative capacity (stimulation index about 2.5-2.8), higher than that achieved with ConA alone. After 29 days culture, most cells were positive for the gamma delta TCR and these cells had high spontaneous cytolytic activity against the chicken lymphoblastoid tumor cell line LSCC-RP9 at effector:target ratios 2-16:1.

USE - (I), or transformed cells or recombinant viruses that express it, are used as adjuvant for vaccines used in poultry, specifically chickens, to protect against a wide variety of diseases, e.g. those caused by viruses, Eimeria or other protozoa, or **Mycoplasma gallisepticum**.

ADVANTAGE - Administration of (I) improves the immune response to vaccinating antigens. Compositions containing recombinant cells or viruses can be stored, optionally in lyophilized form, under normal conditions, obviating the need for storage in liquid nitrogen.

Dwg.0/10

L7 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2000 ACS DUPLICATE 1

1997:679108 Document No. 127:345325 Recombinant avipoxvirus-based vector for preparation of novel **fusion protein** comprising an antigenic protein of **Mycoplasma gallisepticum** and an outer membrane protein of a **herpesvirus** for tri-valence vaccine.

Saito, Shuji; Tsuzaki, Yoshinari; Yanagida, Noboru (Nippon Zeon Co., Ltd., Japan; Saito, Shuji; Tsuzaki, Yoshinari; Yanagida, Noboru). PCT Int. Appl. WO 9736924 A1 19971009, 51 pp. DESIGNATED STATES: W: AU, CA, JP, KR, US; RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (Japanese). CODEN: PIXXD2. APPLICATION: WO 1997-JP1084 19970328. PRIORITY: JP 1996-103548 19960329.

AB Disclosed is a novel **fusion protein** comprising from N-terminus a **herpesvirus** outer membrane protein or its signal peptide and an antigenic protein of **Mycoplasma gallisepticum** for protecting poultry from the infection by **M. gallisepticum**. The **fusion protein** is prepd. by expression of its encoding DNA sequence from an avipoxvirus-based vector. Prepn. of 2 **fusion proteins** comprised of the signal peptide and the nearly-full length of Marek's disease virus (MDV; Gallid **herpesvirus**) gB protein that are fused resp. to the **M. gallisepticum** 40-kDa protein (TTM-1) using a fowlpox virus was shown. The recombinant avipoxvirus can be used as a tri-valence vaccine against the infection by avipoxvirus, **herpesvirus**, and **M. gallisepticum**.

=> s fusion protein and (m or mycoplasma)(w)galliseptic? and (anti marek? disease or avipox?)

L8 0 FILE MEDLINE

L9 2 FILE CAPLUS
L10 0 FILE BIOSIS
L11 0 FILE EMBASE
L12 0 FILE WPIDS

TOTAL FOR ALL FILES
L13 2 FUSION PROTEIN AND (M OR MYCOPLASMA)(W) GALLISEPTIC? AND (ANTI MAREK? DISEASE OR AVIPOX?)

=> s l13 not l6

L14 0 FILE MEDLINE
L15 1 FILE CAPLUS
L16 0 FILE BIOSIS
L17 0 FILE EMBASE
L18 0 FILE WPIDS

TOTAL FOR ALL FILES
L19 1 L13 NOT L6

=> d cbib abs

L19 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2000 ACS
1995:372773 Document No. 122:158617 Recombinant **avipox** viruses as vaccines against **Mycoplasma gallisepticum**. Saito, Shuji; Ohkawa, Setsuko; Saeki, Sakiko; Ohsawa, Ikuroh; Funato, Hirono; Iritani, Yoshikazu; Aoyama, Shigemi; Takahashi, Kiyohito (Nippon Zeon Co., Ltd., Japan; Shionogi and Co., Ltd.). PCT Int. Appl. WO 9423019 A1 19941013, 123 pp. DESIGNATED STATES: W: AU, CA, JP, KR, US; RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (Japanese). CODEN: PIXXD2. APPLICATION: WO 1994-JP541 19940331. PRIORITY: JP 1993-74139 19930331; JP 1993-245625 19930930.

AB A recombinant **avipox** virus expressing a **fusion protein** comprised of a signal membrane anchor of a type II outer-membrane polypeptide of a virus that infects fowls. The genes encoding antigenic polypeptides TTM-1, TM-81, TM-67, TM-66, and TM-16 of **Mycoplasma gallisepticum** are isolated and sequenced. Recombinant fowlpox viruses (FPV) expressing the signal membrane polypeptide of hemagglutinin neuraminidase of Newcastle disease virus and one of the polypeptides were prepd. The recombinant virus, as a live vaccine, was able to induce antibodies against **M. gallisepticum**.

=> s fusion protein and outer membrane protein and (herpes? or marek? or avipox?)

L20 2 FILE MEDLINE
L21 5 FILE CAPLUS
L22 1 FILE BIOSIS
L23 0 FILE EMBASE
L24 1 FILE WPIDS

TOTAL FOR ALL FILES
L25 9 FUSION PROTEIN AND OUTER MEMBRANE PROTEIN AND (HERPES? OR MAREK? OR AVIPOX?)

=> s l25 not (l13 or l6)

L26 2 FILE MEDLINE
L27 4 FILE CAPLUS
L28 1 FILE BIOSIS
L29 0 FILE EMBASE
L30 0 FILE WPIDS

TOTAL FOR ALL FILES
L31 7 L25 NOT (L13 OR L6)

=> dup rem l31

PROCESSING COMPLETED FOR L31
L32 5 DUP REM L31 (2 DUPLICATES REMOVED)

=> d cbib abs 1-5

L32 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2000 ACS
1999:233809 Document No. 130:266361 Mannose receptor bearing cell line and antigen composition. McKenzie, Ian F. C.; Apostolopoulos, Vasso; Pietersz, Geoffrey A. (The Austin Research Institute, Australia). PCT Int. Appl. WO 9916455 A1 19990408, 84 pp. DESIGNATED STATES: W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1998-IB1718 19980929. PRIORITY: US 1997-60594 19970929.

AB The present invention relates to a product and process for regulating the activity of T cells using a conjugate comprising an antigen and mannose including fully oxidized mannose or partially reduced mannose having aldehyde groups, and isolated mannose receptor-bearing cells. The isolated mannose receptor bearing cells are derived from macrophages, dendritic cells, peripheral blood leukocytes, bone marrow, stem cells, tumor cells stromal cells, peritoneal cells, spleen, lung and lymph node cells. The mannose receptor-bearing cells may also express CD11b, CD14, CD68, CD80 and CD86, and are treated with modifiers such as cytokines (GM-CSF, M-CSF, interleukin 3, interleukin 4, etc.) and vitamins (vitamin D and others). The antigen is a tumor-assocd. antigen, or viral, fungal, protozoal or bacterial antigens, i.e. nm23, p53, Her2/neu, MUC1, BRACA1, BRACA2, MAGE, CEA, Erb2, pollen, hepatitis C virus core, E1, E2 and NS2 proteins, etc.

L32 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2000 ACS
1998:493166 Document No. 129:160615 Recombinant infectious bovine rhinotracheitis virus S-IBR-052 and uses thereof. Cochran, Mark D.; MacDonald, Richard D. (Syntro Corporation, USA). U.S. US 5783195 A 19980721, 117 pp. Cont.-in-part of U.S. Ser. No. 732,584, abandoned. (English). CODEN: USXXAM. APPLICATION: US 1994-191866 19940204. PRIORITY: US 1991-732584 19910718.

AB The present invention provides a recombinant infectious bovine rhinotracheitis virus designated S-IBR-052 (ATCC Accession No. VR 2443). A vaccine is provided which comprises an effective immunizing amt. of S-IBR-052 and a suitable carrier. A method of immunizing an animal

against disease caused by infectious bovine rhinotracheitis virus is also provided which comprises administering to the animal an effective immunizing dose of the vaccine. The present invention also provides a method of distinguishing an animal vaccinated with the vaccine of the present invention from an animal infected with a naturally-occurring infectious bovine rhinotracheitis virus. Thus, prepd. were several recombinant bovine rhinotracheitis virus vaccines comprising deletion of .gtoreq.1 gene (selected from unique short 2 gene, immediate early gene, glycoprotein G gene, glycoprotein E gene and thymidine kinase gene), and insertion of .gtoreq.0 gene (selected from pseudorabies virus glycoprotein E gene or aminoglycoside 3'-phosphotransferase gene, bovine rotavirus glycoprotein 38 gene, parainfluenza type 3 virus hemagglutinin gene or fusion gene, bovine viral diarrhea virus gp53 gene, bovine respiratory syncytial virus genes for attachment, nucleocapsid and **fusion proteins**, and Pasteurella haemolytica genes for leukotoxin and iron regulated **outer membrane proteins**).

L32 ANSWER 3 OF 5 MEDLINE

1998022901 Document Number: 98022901. Selective phage infection mediated by epitope expression on F pilus. Malmborg A C; Soderlind E; Frost L; Borrebaeck C A. (Department of Immunotechnology, Lund University, Sweden.)JOURNAL OF MOLECULAR BIOLOGY, (1997 Oct 31) 273 (3) 544-51. Journal code: J6V. ISSN: 0022-2836. Pub. country: ENGLAND: United Kingdom. Language: English.

AB Proteins and peptides can be displayed on bacterial and bacteriophage surfaces as fusions to bacterial integral membrane proteins or phage coat proteins. We now report on the expression of peptide antigens on the surface of F pili, elaborated by F+ strains of Escherichia coli. The peptides were expressed as fusions to F pilin, the building block of the F pilus that is encoded by the traA gene on the F plasmid. Filamentous bacteriophage infection of E. coli is normally mediated by phage binding to pilin at the F pili tip. Expression of 13 to 15 amino acid long peptides on the F pilus completely blocked infection by derivatives of wild-type infectious M13 phage. However, when a phage displaying a specific recombinant antibody fragment was allowed to interact with F pili displaying an antigenic peptide a bacterial infection could be demonstrated. This infection, mediated by the antibody-antigen interaction, resulted in bacterial cells containing plasmids encoding both the protein and the ligand. In a model library, where a scFv antibody against the human cytomegalovirus AD-2 epitope was selected we achieved an enrichment of 2500 of phage carrying the specific antibody, indicating an efficient selective infection. Copyright 1997 Academic Press Limited.

L32 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2000 ACS

1995:742918 Document No. 123:123177 Antigen-carbohydrate conjugates and their use in immunotherapy. McKenzie, Ian Farquhar Campbell; Apostolopoulos, Vasso; Pietersz, Geoff Allan (Austin Research Institute, Australia). Eur. Pat. Appl. EP 659768 A2 19950628, 34 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE. (English). CODEN: EPXXDW. APPLICATION: EP 1994-303817 19940526.

PRIORITY: AU 1993-3223 19931224.

AB Conjugates between .gtoreq.1 repeated subunits of an antigen and a carbohydrate polymer are useful as immunogenic vaccines against disease

states and for inducing cell-mediated immune responses. The conjugates may esp. contain polymers of mannose and .gtoreq.1 repeated subunits of human mucin for treatment of cancers characterized by overprodn. of mucin.
Thus, a **fusion protein** of 5 repeats of a 60-amino-acid sequence from human mucin MUC1 with glutathione S-transferase was conjugated to the aldehyde groups of oxidized mannan and stabilized by redn. Mice immunized with this conjugate and subsequently challenged with
MUC1-expressing tumor cells showed inhibition of tumor growth.

L32 ANSWER 5 OF 5 MEDLINE DUPLICATE 1
83273636 Document Number: 83273636. Open reading frame expression vectors: a
general method for antigen production in Escherichia coli using protein fusions to beta-galactosidase. Weinstock G M; ap Rhys C; Berman M L; Hampar B; Jackson D; Silhavy T J; Weisemann J; Zweig M. PROCEEDINGS OF THE
NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (1983 Jul) 80 (14) 4432-6. Journal code: PV3. ISSN: 0027-8424. Pub. country: United States. Language: English.
AB We have developed an Escherichia coli plasmid vector for the identification and expression of foreign DNA segments that are open reading frames (ORFs). The 5' end of ompF, an E. coli gene encoding an abundant **outer membrane protein**, is used to
provide a strong, regulated promoter, translation initiation site, and signal sequence for export from the cytoplasm. This sequence is coupled to
the lacZ gene of E. coli so that expression of beta-galactosidase requires
ompF transcription and translation signals. However, this hybrid gene is LacZ- because lacZ is out of frame with respect to ompF. Restriction enzyme recognition sites are located between ompF and lacZ to allow convenient insertion of DNA fragments. If an insert is an ORF of the correct length, ompF and lacZ become realigned in frame, resulting in a LacZ+ gene that produces a tribrid protein with the translation product of
the insert sandwiched between OmpF and beta-galactosidase. The LacZ+ phenotype thus identifies clones containing an expressed ORF. To demonstrate the vector's utility we inserted a fragment from the **herpes** virus thymidine kinase gene and used the resulting tribrid protein to raise antibodies that precipitate thymidine kinase from **herpes** virus-infected cells. We also inserted a fragment from the E. coli lexA gene to produce a tribrid protein that is precipitated by antiserum raised with LexA protein. Thus, tribrid **fusion proteins** can be used to produce or detect antibodies and also to identify the product of a cloned gene.

=> s saitoh s?/au,in;s tsuzaki y?/au,in;s yanagida n?/au,in

'IN' IS NOT A VALID FIELD CODE
L33 336 FILE MEDLINE
L34 311 FILE CAPLUS
L35 452 FILE BIOSIS
'IN' IS NOT A VALID FIELD CODE
L36 337 FILE EMBASE
L37 140 FILE WPIDS

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TOTAL FOR ALL FILES
L38       1576 SAITOH S?/AU,IN


'IN' IS NOT A VALID FIELD CODE
L39          8 FILE MEDLINE
L40         42 FILE CAPLUS
L41         15 FILE BIOSIS
'IN' IS NOT A VALID FIELD CODE
L42          9 FILE EMBASE
L43          4 FILE WPIDS

TOTAL FOR ALL FILES
L44         78 TSUZAKI Y?/AU,IN


'IN' IS NOT A VALID FIELD CODE
L45         25 FILE MEDLINE
L46         82 FILE CAPLUS
L47         42 FILE BIOSIS
'IN' IS NOT A VALID FIELD CODE
L48         28 FILE EMBASE
L49         16 FILE WPIDS

TOTAL FOR ALL FILES
L50        193 YANAGIDA N?/AU,IN

=> s l38 and l44 and l50

L51          0 FILE MEDLINE
L52          0 FILE CAPLUS
L53          0 FILE BIOSIS
L54          0 FILE EMBASE
L55          0 FILE WPIDS

TOTAL FOR ALL FILES
L56          0 L38 AND L44 AND L50

=> s (138 or 144 or 150) and fusion protein

L57          3 FILE MEDLINE
L58          3 FILE CAPLUS
L59          2 FILE BIOSIS
L60          1 FILE EMBASE
L61          2 FILE WPIDS

TOTAL FOR ALL FILES
L62         11 (L38 OR L44 OR L50) AND FUSION PROTEIN

=> s l62 not (16 or 113 or 125)

L63          3 FILE MEDLINE
L64          2 FILE CAPLUS
L65          2 FILE BIOSIS
L66          1 FILE EMBASE
L67          1 FILE WPIDS

TOTAL FOR ALL FILES
L68          9 L62 NOT (L6 OR L13 OR L25)
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=> dup rem l68

PROCESSING COMPLETED FOR L68
L69 6 DUP REM L68 (3 DUPLICATES REMOVED)

=> d 1-6 cbib abs

L69 ANSWER 1 OF 6 MEDLINE
97394713 Document Number: 97394713. Use of green fluorescent protein for intracellular protein localization in living fission yeast cells. Nabeshima K; **Saitoh S**; Yanagida M. (Department of Biophysics, Faculty of Science, Kyoto University, Japan.)METHODS IN ENZYMOLOGY, (1997) 283 459-71. Journal code: MVA. ISSN: 0076-6879. Pub. country: United States. Language: English.

L69 ANSWER 2 OF 6 MEDLINE
94378518 Document Number: 94378518. Identification and characterization of a Marek's disease virus gene homologous to glycoprotein L of herpes simplex virus. Yoshida S; Lee L F; **Yanagida N**; Nazerian K. (USDA-Agricultural Research Service, Avian Disease and Oncology Laboratory, East Lansing Michigan 48823.)VIROLOGY, (1994 Oct) 204 (1) 414-9. Journal code: XEA. ISSN: 0042-6822. Pub. country: United States. Language: English.
AB We have identified three Marek's disease virus (MDV) open reading frames (ORFs) within the BamHI D fragment of MDV genome. The predicted polypeptides are homologous to UL1 (glycoprotein L, gL), UL2 (uracil-DNA glycosylase), and UL3 (nuclear localizing phosphoprotein) of herpes simplex virus type 1 (HSV-1). Comparison of the deduced amino acid sequences of these three ORFs with HSV-1 counterparts revealed overall identities of 18, 43, and 49%, respectively. In spite of the low overall amino acid identity with HSV-1 gL, the first open reading frame was identified as a gL homolog of HSV-1 based not only on the gene arrangement but also on a limited amino acid conservation among gL homologs of alpha-herpesviruses. To characterize the expression of the MDV gL gene, an antiserum to a hydrophilic region of the gene expressed in a bacterial expression vector was produced. Immunoprecipitation with this antiserum revealed a 25,000-Da polypeptide in MDV-infected cells. Furthermore, the 25,000-Da polypeptide migrated as a 18,000-Da polypeptide following PNGase F treatment. This result is consistent with the predicted molecular weight of MDV gL, considering the two potential N-glycosylation sites and the predicted N-terminal signal sequence. A recombinant fowlpox virus expressing the MDV gL gene was generated to characterize this glycoprotein. Unlike gL in MDV-infected cells, gL expressed by recFPV-gL was highly sensitive to Endo H, indicating that it was probably retained in the endoplasmic reticulum and was not properly processed to a mature form. Therefore, similar to HSV-1 coexpression and complex formation of MDV gL and gH may be required for proper processing and transport of gL to the cell surface.

L69 ANSWER 3 OF 6 MEDLINE DUPLICATE 1
93366806 Document Number: 93366806. Myristoylation of hippocalcin is linked

to its calcium-dependent membrane association properties. Kobayashi M; Takamatsu K; **Saitoh S**; Noguchi T. (Department of Physiology, Toho University School of Medicine, Tokyo, Japan.)JOURNAL OF BIOLOGICAL CHEMISTRY, (1993 Sep 5) 268 (25) 18898-904. Journal code: HIV. ISSN: 0021-9258. Pub. country: United States. Language: English.

AB Hippocalcin, a recently identified Ca(2+)-binding protein of the recoverin family exclusively expressed in the hippocampus, has a primary structure containing three putative Ca(2+)-binding sites (EF-hands) and a possible NH2-terminal myristoylation site. 45Ca blots demonstrated that every three . EF-hand domains, expressed as **fusion proteins** in Escherichia coli, bind Ca2+, indicating that hippocalcin binds 3 mol of Ca2+/mol of protein. To determine whether hippocalcin is myristoylated, hippocalcin mRNA was translated in vitro in the presence of [3H]myristic acid. 3H label was resistant to hydroxylamine treatment, and replacement of NH2-terminal glycine with alanine prevented 3H label incorporation, indicating that in vitro translated hippocalcin covalently bound [3H]myristic acid at the NH2-terminal glycine. In vitro translated hippocalcin is quantitatively myristoylated, as evidenced by an electrophoretic mobility shift of [35S]methionine-labeled protein on two-dimensional gels. Native hippocalcin comigrated precisely with the in vitro translated hippocalcin on two-dimensional gels, suggesting that native hippocalcin is myristoylated. Native and in vitro translated hippocalcins, but not non-myristoylated mutagenic (Gly1-Ala1) hippocalcin, displayed Ca(2+)-dependent membrane association, indicating that myristoylation participates in its Ca(2+)-dependent membrane association properties. In vitro translated hippocalcin bound to phospholipid vesicles somewhat, however, phospholipid association was insufficient for its membrane association properties, suggesting that the NH2-terminal myristoyl moiety on hippocalcin interacts with lipid bilayers and facilitates interaction with other membrane proteins.

L69 ANSWER 4 OF 6 BIOSIS COPYRIGHT 2000 BIOSIS

1993:320323 Document No.: PREV199396028673. Fowlpox virus recombinants expressing the envelope glycoprotein of an avian reticuloendotheliosis retrovirus induce neutralizing antibodies and reduce viremia in chickens. Calvert, Jay G.; Nazerian, Keyvan (1); Witter, Richard L.; **Yanagida, Noboru**. (1) USDA/ARS Avian Disease Oncol. Lab., East Lansing, MI 48823 USA. Journal of Virology, (1993) Vol. 67, No. 6, pp. 3069-3076. ISSN: 0022-538X. Language: English.

AB Eight stable fowlpox virus (FPV) recombinants which express the envelope glycoprotein of the spleen necrosis virus (SNV) strain of reticuloendotheliosis virus (REV), an avian retrovirus, were constructed. These recombinants differ in the genomic location of the inserted genes, in the orientation of the insert relative to flanking viral sequences, and in the promoter used to drive expression of the env gene. Of these variables, promoter strength seems to be the most crucial. The P-7.5 promoter of vaccinia virus, which is commonly used in the construction of both vaccinia virus and FPV recombinants, resulted in lower levels of expression of the envelope antigen in infected chicken cells compared with a strong synthetic promoter, as determined by immunofluorescence and enzyme-linked immunosorbent assay. Two peptides encoded by the env gene, the 21-kDa transmembrane peptide and a 62-kDa precursor, were detected by immunoprecipitation of labeled proteins from cells infected with

recombinant FPVs, using monoclonal antibodies against REV. These peptides comigrated with those precipitated from REV-infected cells. One of the recombinants (f29R-SNenv) was used for vaccination of 1-day-old chickens. Vaccinated chicks developed neutralizing antibodies to SW more rapidly than did unvaccinated controls following SNV challenge and were protected against both viremia and the SW-induced runting syndrome.

L69 ANSWER 5 OF 6 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD
AN 1991-001591 [01] WPIDS
AB EP 404576 A UPAB: 19930928
A recombinant Avipoxvirus is claimed having inserted the whole or part of cDNA coding for Newcastle disease virus (NDV)-derived **fusion protein** in a genome region non-essential to proliferation of Avipoxvirus.

To prepare the recombinant Avipoxvirus, a first recombinant vector was constructed contg. a DNA region non-essential to proliferation of Avipoxvirus and pref. a promoter.

USE/ADVANTAGE - The recombinant Avipoxvirus can be used as live vaccine in fowls and provides immunity against fowlpoxvirus and NDV. 0/8

L69 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2000 ACS
1990:472521 Document No. 113:72521 Cloning and expression of genes for Mycoplasma gallisepticum antigens foruse in diagnostics and vaccines. Kodama, Kazumi; Saito, Shuji; **Yanagida, Noboru**; Kamogawa, Kouichi; Iritani, Yoshikazu; Aoyama, Shigemi (Nippon Zeon Co., Ltd., Japan; Shionogi and Co., Ltd.). Eur. Pat. Appl. EP 345021 A2 19891206, 31
pp. DESIGNATED STATES: R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE. (English). CODEN: EPXXDW. APPLICATION: EP 1989-305441 19890531.
PRIORITY: JP 1988-136343 19880602.
AB Antigens of the poultry pathogen M. gallisepticum are manufd. by expression of the cloned genes in Escherichia coli or other suitable hosts. Genes encoding the antigens were cloned from a M. gallisepticum genomic library in .lambda.gt11 by immunoscreening. A fusion gene of the MG-1 antigen coding sequence and the lacZ gene in the plasmid pMAH1 was introduced in E. coli. The E. coli transformants produced a **fusion protein** MGg-1 [mol. wt. 145 kilodalton (Kd)] of .beta.-galactosidase (115 KD) and MG-1 (30 KD) detd. by western blotting. In an assay for growth inhibition of M. gallisepticum, antibodies raised against MGg-1 and a natural M. gallisepticum polypeptide TMG-1 were comparable. Agglutination of M. gallisepticum with anti-MGg-1 antibody and diagnosis of poultry Mycoplasma infection using the M. gallisepticum antigens were described.

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